



- **SILICON-ON-SAPPHIRE SENSOR TECHNOLOGY**
- **LICENCE FREE RADIO TRANSMISSION UP TO 500 METRES**
- **BATTERY POWERED**
- **ALL STAINLESS STEEL HOUSING**
- **HIGH STABILITY AND REPEATABILITY**
- **PRESSURE RANGES 0-500mbar TO 0-1500bar**
- **ZERO + SPAN ADJUSTABLE**
- **COMPLIANT TO REGULATORY STANDARDS**
- **TYPE AND CE APPROVED**

DESCRIPTION

The PR9500 NON-WIRED Pressure Transmitter is designed for safe operation in tough industrial and process applications - without the need for hard wiring. The PR9500 transmitter can be situated in hazardous and relatively inaccessible areas, allowing the operator to monitor at safe distances on site.

No hard wiring means lower installation cost and maintenance, resulting in cost savings. Robustly constructed from stainless steel, the PR9500 transmitter incorporates the latest silicon-on-sapphire sensor technology, giving optimum stability and repeatability in all industrial and process environments.

The PR9500 transmitter operates by sending data signals by radio telemetry to a digital indicator or other device incorporating a compatible receiver. Powered by an internal battery supply, the transmitter is capable of sending data signals at distances of up to 500 metres.

Typical applications include mechanical and civil engineering installations, process plant, water utilities, petrochemical, power generation and any application on fluid or gas requiring a stable, repeatable and accurate pressure measurement at distances on site.

The removal of the large cap at the head of the unit, allows easy access for zero/span adjustment and re-calibration or for battery replacement. Standard pressure connection is 1/2" BSP or optionally 1/2" NPT is available. Pressure ranges are from 0 - 500mbar to 0 - 1500bar.

SPECIFICATION

PRESSURE RANGES:

0 to 500mbar through to 0-1500barG, see table below for list of all standard pressure ranges.

OVERPRESSURE:

Pressure can exceed rated range by the multiple shown below with no damage or change in calibration above $\pm 0.5\%$ FS.
 2x for ranges up to 700 bar
 1.5x up to 1000bar
 1.1x above 1500bar

UHF RADIO TRANSMITTER / RECEIVER:

Low power (license free), transmission frequency 418 MHz, 433MHz

TRANSMISSION RANGE:

Point-to-point radio transmission up to 500 metres line-of-site

DATA TRANSMISSION RATE:

Serial radio packet at 4800/9600 baud

RESOLUTION:

$\pm 0.024\%$ FS (12 BIT ADC)

COMBINED NON-LINEARITY AND HYSTERESIS:

$\pm 0.30\%$ FS best fit straight line definition.

REPEATABILITY:

$\pm 0.1\%$ FS defined as maximum error between 3 consecutive pressure cycles.

LONG TERM STABILITY:

$\pm 0.1\%$ FS/year non-cumulative

POWER SUPPLY:

Replaceable 3.2V (1/2AA) Lithium Thionyl Chloride battery.

PRESSURE MEDIA:

All fluids compatible with 300 series stainless steel and titanium alloy diaphragm.

OPERATING TEMPERATURE RANGE:

Ambient -40° to +85°C
 Media: -40° to +120°C
 Storage: -55° to +150°C

TEMPERATURE EFFECTS:

$\pm 1.5\%$ FS total error band for -20° to 80°C
 Typical thermal zero and span coefficients $\pm 0.015\%$ FS/°C

RADIO TYPE APPROVALS:

MPT1328
 EN300220

ELECTROMAGNETIC-COMPATILITY:

Certification EN300680
 CE marked

PRESSURE CONNECTION:

1/2" BSP male as standard, optionally 1/2" NPT is available.

ELECTRICAL CONNECTION:

Screw terminals for conductor sizes 0.2-2.0mm² are located beneath the screw lid inside the head. Cable entry to head is through an IP66 cable gland with compression seal for cable sizes 4-8mm. Optional M20 conduit fitting available.

INGRESS PROTECTION:

IP66 when installed correctly.

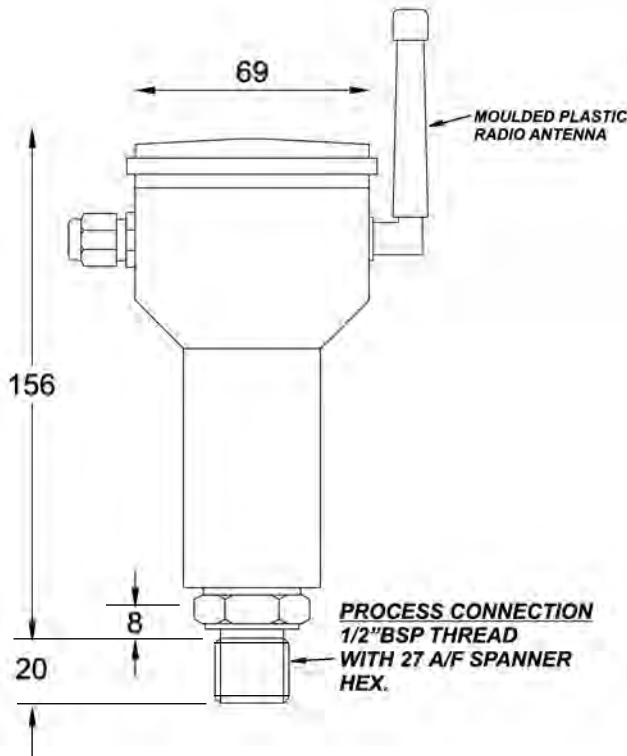
WEIGHT:

1.3Kg

ACCESSORIES:

RX9500 radio receiver station

DIMENSIONS (in mm)



ORDER DETAILS

State model number, pressure range required and operating frequency:-
 e.g. PR9500 0-10bar, 433MHz

Model No.	DESCRIPTION
PR9500 RX9500	Radio Transmitter Radio Receiver

PRESSURE RANGES

-1 - 0 bar Vac	0 - 25 barg
0 - 500 mbarg	0 - 40 barg
0 - 1 barg	0 - 60 barg
0 - 1.6 barg	0 - 100 barg
0 - 2.5 barg	0 - 160 barg
0 - 4 barg	0 - 250 barg
0 - 6 barg	0 - 400 barg
0 - 10 barg	0 - 600 barg
0 - 16 barg	0 - 1000 barg
	0 - 1500 barg

CALIBRATION

All products manufactured by Ellison Sensors are calibrated using precision calibration equipment with traceability to international standards.

Ellison Sensors operates a policy of continuous product development. We reserve the right to change specification without prior notice.

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